

Recombinant kinase remaining stable during the synthesis of nucleoside monophosphate without the addition of stabilizing SH reagents, without stabilizing proteins and accepting all four natural deoxynucleotides, obtainable from insect cells such as e.g. *Drosophila Melanogaster*. In addition, the invention concerns DNA sequences, vectors, transformed cells, a method for production of the recombinant kinase as well as its use for preparing nucleoside monophosphates.